



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/586,858

10/27/2006

Kazuhiko Ueda

Q95836

2917

23373 7590 12/08/2010  
SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

LOEWE, ROBERT S

ART UNIT

PAPER NUMBER

1766

NOTIFICATION DATE

DELIVERY MODE

12/08/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sughrue@sughrue.com  
PPROCESSING@SUGHRUE.COM  
USPTO@SUGHRUE.COM

<b>Office Action Summary</b>	<b>Application No.</b> 10/586,858	<b>Applicant(s)</b> UEDA ET AL.	
	<b>Examiner</b> ROBERT LOEWE	<b>Art Unit</b> 1766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,7 and 9-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7 and 9-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/15/10</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments/remarks, filed on 11/15/10, have been fully considered. Applicants argue that the prior art rejections made in the previous Office action do not disclose or suggest the presently claimed pressure sensitive adhesive product. A 1.132 Declaration is submitted with the response. Specifically, the 1.132 Declaration reproduces examples from Toda (JP 05-302026) and Watabe et al. (JP 05-059267), which are the two references relied upon to reject instant claim 1. The 1.132 Declaration shows three examples; (1) example (A), which corresponds to example 2 of Toda et al., (2) example (B), which corresponds to example 2 of Watabe et al., and (3) example (C), which is a composition not containing any tackifier. The data shows that the three compositions have poor adhesive strength (0.1, 0.1 and 2.5 N/25 mm, respectively). Applicants argue that neither of the references relied upon teach a pressure sensitive adhesive product and neither reference teaches or suggests that the presence of components (A), (B) and (C) would afford a pressure sensitive adhesive product.

The central questions to be asked are (1) Does Toda et al. in view of Watabe et al. render obvious Applicants claimed composition, and (2) Are the results shown by the Applicants unexpected? Based on the rejection below, the teachings of Toda et al. and Watabe et al. do render obvious Applicants claimed composition. Applicants are perhaps aware of this because of their attempts to obviate the prior art rejection by attempting to show unexpected results.

The 1.132 Declaration, filed on 11/15/10, shows that the compositions taught by Toda and Watabe et al. are not pressure sensitive adhesive compositions. However, since Toda and Watabe et al. render obvious Applicants claimed composition, any physical properties associated with the combined teachings of Toda and Watabe et al. would necessarily be present. A chemical composition and its properties are inseparable. While the Examiner does acknowledge the unexpected adhesive properties obtained when combining components (A), (B) and (C), such a showing of unexpected results must be commensurate in scope with the claimed subject matter. It is believed that there are two elements to instant claim 1 which are broader than the results presented in the originally filed disclosure and 1.132 Declarations. First, the amount of component (B) employed in the specification and 1.132 Declaration ranges from 10 to 40 parts by weight per 100 parts by weight of component (A), while the amount of component (B) of

Art Unit: 1766

claim 1 is ranges from 1 to 100 parts by weight, which is broader than what is shown in the examples. Second, the amount of tackifier employed in the specification and the 1.132 Declarations ranges from 30 to 40 parts by weight relative to 100 parts by weight of components (A) and (B) while the amount of component (C) of claim 1 ranges from 30 to 100 parts by weight, which is broader than what is shown in the examples. Whether the unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, the “objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support.” In other words, the showing of unexpected results must be reviewed to see if the results occur over the entire claimed range. *In re Clemens*, 622 F.2d 1029, 1036, 206 USPQ289, 296 (CCPA 1980). See MPEP 716.02(d).

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 12 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, claim 12 recites that the composition does not contain calcium carbonate. However, Applicants do not have support for such a proviso as the originally filed disclosure does not disclose this. While the compositions according to Applicants invention do not contain fillers including calcium carbonate, there is no description to this fact in the originally filed disclosure. Further, Toda et al. and Watabe et al. (the references relied upon to reject instant claim 1) do not require fillers, they only suggest that fillers such as calcium carbonate may be present.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toda et al. (JP 05-302026) in view of Watabe et al. (JP 05-059267). Certified English-language translations of Watabe et al. and Toda et al. (both already of record) will be relied upon in the rejection below

Toda et al. teaches a composition comprising (A) an oxyalkylene polymer having a molecular weight of from 4,000-30,000 and having at least two hydrolyzable silyl-groups at the chain ends (paragraph 0002), such oxyalkylene polymers being prepared by a hydrosilylation reaction of an allyl-terminated polyether with the silane of formula (1). Formula (1) of Toda et al. satisfies the structural limitations of formula (1) of the instant claims. Integer "a" can include 0 or 1, which inherently yields a polyether having greater than 2 hydrolyzable silanes per polymer. Toda et al. further teaches 3-60 parts of a resin (paragraph 0019) such as rosin ester resins (paragraphs 0015-0016). The amounts of polymer (a) and tackifier (c) as taught by Toda et al. overlap with those ranges recited in instant claims 1 and 8. Toda et al. further teaches curing the composition onto steel plates, which qualify as a support material required by instant claim 1. While Toda et al. does not teach that the materials are thermally cured (Toda et al. teaches curing at room temperature), claim 1 is written using product-by-process format. Even though product-by-process claims are limited and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was

Art Unit: 1766

made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Toda et al. does not explicitly teach the addition of an oxyalkylene polymer having the structural and molecular weight limitations of instant claim 1 [component (B) of instant claim 1]. However, Watabe et al. does teach the addition of such oxyalkylene polymers (paragraphs 0030-0036) which substantially comprise polyethers and preferably have from 0.5 to 1.2 hydrolyzable groups per polymer and preferably have molecular weights of from 2,000 to 4,000. The molecular weight range and hydrolyzable group content satisfy the limitations of component (B) of instant claim 1. Watabe et al. further teaches that the amount of component (B) should preferably be from 1 to 100 parts per 100 parts by weight of the higher molecular polymer (1) (paragraph 0036), which represents the same type of higher molecular weight polymer as taught by Toda et al. Therefore, Watabe et al. teaches the amount requirement of component (B) of the instant claims. Toda et al. and Watabe et al. are combinable because they are from the same field of endeavor, namely, curable compositions comprising silyl-terminated polyethers and curing catalysts. Further, both Toda et al. and Watabe et al. are interested in preparing compositions which are used as sealants. At the time of the invention, a person having ordinary skill in the art would have found it obvious to add the low molecular weight oxyalkylene polymers as taught by Watabe et al. into the compositions taught by Toda et al. and would have been motivated to do so since Watabe et al. teaches that the low molecular weight oxyalkylene polymers are effective plasticizers and display low migration, allowing the compositions to be pliable (paragraphs 0003 and 0007). Watabe et al. further teaches that the low molecular weight oxyalkylene polymers are superior plasticizers when compared to other known plasticizers such as phosphoric acid esters, and aromatic carboxylic acid esters (paragraphs 0006 and 0007). Toda et al. teaches the addition of plasticizers which include the same phosphoric acid esters and aromatic carboxylic acid esters plasticizers as taught by Watabe et al. (paragraph 0023 of Toda et al.). Based on the teachings of Watabe et al., a person having ordinary skill in the art would be motivated to employ the oxyalkylene polymer plasticizers as taught by Watabe et al. into the compositions as taught by Toda et al. because such oxyalkylene polymer plasticizers have improved properties over the plasticizers taught by Toda et al. as shown by Watabe et al. (Table

1). Embodiment 5 of table 1 shows the employment of dioctylphthalate instead of the oxyalkylene polymer plasticizer showed a dramatically higher weight loss.

While neither Toda et al. nor Watabe et al. expressly teach the preparation of a pressure sensitive adhesive product as required by the preamble of instant claim 1, the combination of Toda et al. and Watabe et al. render obvious the claimed composition. As such, any physical properties associated with the composition which is claimed but otherwise not taught by the prior art references would be inherent. A chemical composition and its properties are inseparable.

Claim 10: While Toda et al. does not teach curing the compositions taught therein in the manner of instant claim 10, instant claim 1 is written using product-by-process format. Even though product-by-process claims are limited and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toda et al. (JP 05-302026) in view of Watabe et al. (JP 05-059267), as applied to claim 1 above, further in view of Hirose et al. (US Pat. 4,593,068). Certified English-language translations of Watabe et al. and Toda et al. (both already of record) will be relied upon in the rejection below. Note also that this rejection uses a different patent to Hirose et al. and not the one relied upon in the previous Office actions.

Toda et al., in view of Watabe et al., render obvious the claimed composition. While neither Toda et al. nor Watabe et al. explicitly teach that the compositions may be applied to the specific support materials as required by instant claim 9, or that pressure sensitive tapes, sheets, films and labels may be produced from the compositions taught therein, such intended uses would have been obvious to a person having ordinary skill in the art based on the teachings of Hirose et al. Hirose et al. teaches curable compositions which comprise silyl-terminated polyether polymers and teaches that sealing materials and pressure sensitive adhesive materials may be formulated therefrom (1:10-12). The compositions of Hirose et al. are similar to those

Art Unit: 1766

taught by Toda et al. and Watabe et al. Toda et al. and Hirose et al. are combinable because they are from the same field of endeavor, namely, silyl-terminated polyether compositions used as sealants. At the time of the invention, a person having ordinary skill in the art would have found it obvious to prepare pressure sensitive adhesive products via application of the compositions rendered obvious by Toda et al. in view of Watabe et al. to the support materials of instant claim 9 as well as prepare pressure sensitive tapes, sheets, films and labels and would have been motivated to do so since Hirose et al. teaches that both sealant and pressure sensitive adhesive compositions may be prepared from compositions which have the same principal ingredients as Toda et al. Hirose et al. teaches that the pressure sensitive adhesive compositions may be applied to, *inter alia*, synthetic resins or modified natural resin films, papers, cloths and metal foils (10:48-55) and may be applied to tapes, sheets, labels and foils (10:46-47), which would yield a pressure sensitive adhesive product of instant claim 11.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Loewe whose telephone number is (571)270-3298. The examiner can normally be reached on Monday through Friday from 5:30 AM to 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would



Art Unit: 1766

like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. L./

Examiner, Art Unit 1766

30-Nov-10

/Marc S. Zimmer/

Primary Examiner, Art Unit 1765